

PID Correction Factors

Compound Name	Formula	9.8	C	10.6	C	11.7	C	IP (eV)
Acetaldehyde	C ₂ H ₄ O	NR	+	6	+	3.3	+	10.23
Acetic Acid	C ₂ H ₄ O ₂	NR	+	22	+	2.6	+	10.66
Acetic Anhydride	C ₄ H ₆ O ₃	NR	+	6.1	+	2.0	+	10.14
Acetone	C ₃ H ₆ O	1.2	+	1.1	+	1.4	+	9.71
Acetonitrile	C ₂ H ₃ N					100		12.19
Acetylene	C ₂ H ₂					2		11.40
Acrolein	C ₃ H ₄ O	42	+	3.9	+	1.4	+	10.10
Acrylic Acid	C ₃ H ₄ O ₂			12	+	2.0	+	10.60
Acrylonitrile	C ₃ H ₃ N			NR	+	1.2	+	10.91
Allyl alcohol	C ₃ H ₆ O	4.5	+	2.4	+	1.6	+	9.67
Allyl chloride	C ₃ H ₅ Cl			4.3		0.7		9.9
Ammonia	H ₃ N	>400	+	9.7	+	5.7	+	10.16
Amyl acetate	C ₇ H ₁₄ O ₂	11	+	2.3	+	0.95	+	<9.9
Amyl alcohol	C ₅ H ₁₂ O			5				10.00
Aniline	C ₇ H ₇ N	0.50	+	0.48	+	0.47	+	7.72
Anisole	C ₇ H ₈ O			0.8				8.21
Arsine	AsH ₃			1.9	+			9.89
Benzaldehyde	C ₇ H ₆ O					0.95		9.49
Benzene	C ₆ H ₆	0.55	+	0.53	+	0.6	+	9.25
Benzonitrile	C ₇ H ₅ N			1.6				9.62
Benzyl alcohol	C ₇ H ₈ O	1.4	+	1.1	+	0.9	+	8.26
Benzyl chloride	C ₇ H ₇ Cl	0.7	+	0.6	+	0.5	+	9.14
Benzyl formate	C ₈ H ₈ O ₂	0.9	+	0.73	+	0.66	+	
Boron trifluoride	BF ₃	NR		NR		NR		15.5
Bromine	Br ₂	NR	+	1.3	+	0.74	+	10.51

Compound Name	Formula	9.8	C	10.6	C	11.7	C	IP (eV)
Bromobenzene	C ₆ H ₅ Br			0.6		0.46		8.98
Bromoethyl methyl ether, 2-	C ₃ H ₇ OBr			0.84	+			~10
Bromoform	CHBr ₃	NR	+	2.5	+	0.5	+	10.48
Bromopropane, 1-	C ₃ H ₇ Br	150	+	1.5	+	0.6	+	10.18
Butadiene	C ₄ H ₆	0.8		0.85	+	1.1		9.07
Butadiene diepoxide, 1,3-	C ₄ H ₆ O ₂	25	+	3.5	+	1.2		~10
Butane	C ₄ H ₁₀			67	+	1.2		10.53
Butanol, 1-	C ₄ H ₁₀ O	70	+	4.7	+	1.4	+	9.99
Butanol, t-	C ₄ H ₁₀ O	6.9	+	2.9	+			9.90
Butene, 1-	C ₄ H ₈			0.9				9.58
Butoxyethanol, 2-	C ₆ H ₁₄ O ₂	1.8	+	1.2	+	0.62	+	<10
Butyl acetate, n-	C ₆ H ₁₄ O ₂			2.6	+			10
Butyl acrylate, n-	C ₆ H ₁₄ O ₂			1.6	+	0.61	+	
Butylamine, n-	C ₄ H ₁₁ N	1.1	+	1.1	+	0.7	+	8.71
Butyl hydroperoxide, t-	C ₄ H ₁₀ O ₂	2.0	+	1.6	+			<10
Butyl mercaptan	C ₄ H ₁₀ S	0.55	+	0.52	+			9.14
Carbon disulfide	CS ₂	4	+	1.2	+	0.44	+	10.07
Carbon tetrachloride	CCl ₄	NR	+	NR	+	1.7	+	11.47
Carbonyl sulfide	COS							11.18
Chlorine	Cl ₂					1.0	+	11.48
Chlorine dioxide	ClO ₂	NR	+	NR	+	NR	+	10.57
Chloro-1,3-butadiene, 2-	C ₄ H ₅ Cl			3				
Chlorobenzene	C ₆ H ₅ Cl	0.44	+	0.40	+	0.39	+	9.06
Chloro-1,1difluoroethane	C ₂ H ₃ ClF ₂			NR		NR		12.0
Chlorodifluoromethane	CHClF ₂	NR		NR		NR		12.2

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Chloroethane	C ₂ H ₅ Cl	NR	+	NR	+	1.1	+	11.0
Chloroethanol	C ₂ H ₅ ClO							10.52
Chloroethyl ether, 2-	C ₄ H ₈ Cl ₂ O	8.6	+	3.0	+			
Chloroethyl methyl ether, 2-	C ₃ H ₇ ClO			3				
Chloroform	CHCl ₃	NR	+	NR	+	3.5	+	11.37
Chloro-2-methylpropene, 3-	C ₄ H ₇ Cl	1.4	+	1.2	+	0.63	+	
Chloropicrin	CCl ₃ NO ₃	NR	+	~400	+	7	+	
Chlorotoluene, o-	C ₇ H ₇ Cl			0.5		0.6		8.83
Chlorotoluene, p-	C ₇ H ₇ Cl					0.55		8.69
Chlorotrifluoroethene	C ₂ ClF ₃	6.7	+	3.9	+	1.2	+	9.76
Chlorotrimethylsilane	C ₃ H ₉ ClSi	NR		NR		0.82	+	10.83
Crotonaldehyde	C ₄ H ₆ O	1.5	+	1.1	+	1.0	+	9.73
Cumene	C ₉ H ₁₂	0.58	+	0.54	+	0.4	+	8.73
Cyanogen bromide	CNBr	NR		NR		NR		11.84
Cyanogen chloride	CNCl	NR		NR		NR		12.34
Cyclohexane	C ₆ H ₁₂	3.3	+	1.4	+	0.64	+	9.86
Cyclohexanol	C ₆ H ₁₂ O					1.1		9.75
Cyclohexanone	C ₆ H ₁₀ O	1.0	+	0.9	+	0.7	+	9.14
Cyclohexene	C ₆ H ₁₀			0.8	+			8.95
Cyclohexylamine	C ₆ H ₁₃ N			1.2				8.62
Cyclopentane	C ₅ H ₁₀	NR	+	15	+	1.1	+	10.35
Cyclopropylamine	C ₃ H ₇ N	1.1	+	0.9	+	0.9	+	
Decane	C ₁₀ H ₂₂	4.0	+	1.4	+	0.35	+	9.65
Diacetone alcohol	C ₆ H ₁₂ O ₂			0.7				
Dibromochloromethane	CHBr ₂ Cl	NR	+	5.3	+	0.66	+	10.59

Compound Name	Formula	9.8	C	10.6	C	11.7	C	IP (eV)
Dibromoethane, 1,2-	C ₂ H ₄ Br ₂	NR	+	1.7	+	0.64	+	10.37
Dichlorobenzene, o-	C ₆ H ₄ Cl ₂	0.54	+	0.47	+	0.38	+	9.08
Dichlorodifluoromethane	CCl ₂ F ₂			NR	+	NR	+	11.75
Dichlorodimethylsilane	C ₂ H ₆ Cl ₂ Si	NR		NR		1.1	+	>10.7
Dichloroethane, 1,2-	C ₂ H ₄ Cl ₂			NR	+	0.6	+	11.0
Dichloroethene, 1,1-	C ₂ H ₂ Cl ₂			0.82	+	0.8	+	9.79
Dichloroethene, c-1,2-	C ₂ H ₂ Cl ₂			0.8				9.66
Dichloroethene, t-1,2-	C ₂ H ₂ Cl ₂			0.45	+	0.34	+	9.65
Dichloro-1-fluoroethane, 1,1-	C ₂ H ₃ Cl ₂ F	NR	+	NR	+	2.0	+	
Dichloropentafluoropropane	C ₃ HCl ₂ F ₅	NR	+	NR	+	25	+	
Dichloropropane, 1,2-	C ₃ H ₆ Cl ₂					0.7		10.87
Dichloro-1-propene, 1,3-	C ₃ H ₄ Cl ₂	1.3	+	0.96	+			
Dichloro-1-propene, 2,3-	C ₃ H ₄ Cl ₂	1.9	+	1.3	+	0.67	+	<10
Dichloro-1,1,1-trifluoroethane, 2,2-	C ₂ HClF ₃	NR	+	NR	+	10.1	+	11.5
Dichloro-2,4,6-trifluoropyridine, 3,5-	C ₅ Cl ₂ F ₃ N	1.1	+	0.9	+	0.8	+	
Dichlorvos	C ₄ H ₇ Cl ₂ O ₄ P			0.9	+			<9.4
Dicyclopentadiene	C ₁₀ H ₁₂	0.57	+	0.48	+	0.43	+	8.8
Diesel Fuel #2, whole	m.w. 226			0.9	+			
Diesel Fuel #2, whole	m.w. 226	1.3		0.7	+	0.35	+	
Diesel Fuel #2, vapors				0.4				
Diethylamine	C ₄ H ₁₁ N			0.97	+			8.01
Diethylaminopropylamine, 3-	C ₇ H ₁₈ N ₂			1.3				
Diethylmaleate	C ₈ H ₁₂ O ₄			4				
Diglyme	C ₆ H ₁₄ O ₃	0.64	+	0.54	+	0.44	+	<9.8
Diisopropylamine	C ₆ H ₁₅ N	0.84	+	0.74	+	0.5	+	7.73

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Diketene	C ₄ H ₄ O ₂	2.6	+	2.0	+	1.4	+	9.6
Dimethylacetamide, N,N-	C ₆ H ₁₅ N	0.87	+	0.8	+	0.8	+	8.81
Dimethylamine	C ₂ H ₇ N			1.5				8.23
Dimethyl carbonate	C ₃ H ₆ O ₃	NR	+	70	+	1.7	+	~10.5
Dimethyl disulfide	C ₂ H ₆ S ₂	0.2	+	0.20	+	0.21	+	7.4
Dimethylethylamine	C ₄ H ₁₁ N	1.1	+	1.0	+	0.9	+	7.74
Dimethylformamide, N,N-	C ₃ H ₇ NO	0.7	+	0.7	+	0.8	+	9.13
Dimethylhydrazine, 1,1-	C ₂ H ₈ N ₂			0.78	+	0.83	+	7.28
Dimethyl methylphosphonate	C ₃ H ₉ O ₃ P	NR	+	4.3	+	0.74	+	10.0
Dimethyl sulfate	C ₂ H ₆ O ₄ S	~23		~20	+	2.3	+	
Dimethyl sulfoxide	C ₂ H ₆ OS			1.4	+			9.10
Dioxane, 1,4-	C ₄ H ₈ O ₂			1.3				9.19
Dioxolane, 1,3-	C ₃ H ₆ O ₂	4.0	+	2.3	+	1.6	+	9.9
DS-108F Wipe Solvent	m.w. 118	3.3	+	1.6	+	0.7	+	
Dowtherm J (97% Diethylbenzene)	C ₁₀ H ₁₄			0.5				
Epichlorohydrin	C ₂ H ₅ ClO	~200	+	8.5	+	1.4	+	10.2
Ethane	C ₂ H ₆			NR	+	15	+	11.52
Ethanol	C ₂ H ₆ O			10	+	3.1	+	10.47
Ethanolamine	C ₂ H ₇ NO	5.6	+	1.6	+			8.96
Ethene	C ₂ H ₄			9	+	4.5	+	10.51
Ethoxyethanol, 2-	C ₄ H ₁₀ O ₂			1.3				9.6
Ethyl acetate	C ₄ H ₈ O ₂			4.6	+			10.0
Ethyl acrylate	C ₅ H ₈ O ₂			2.4	+	1.0	+	(<10.3)
Ethylamine	C ₂ H ₇ N			0.8				8.86
Ethylbenzene	C ₈ H ₁₀	0.52	+	0.52	+	0.51	+	8.77

Compound Name	Formula	9.8	C	10.6	C	11.7	C	IP (eV)
Ethylenediamine	C ₂ H ₈ N ₂	0.9	+	0.8	+	1.00	+	8.6
Ethylene glycol	C ₂ H ₆ O ₂			16	+	6	+	10.16
Ethylene glycol dimethyl ether	C ₄ H ₁₀ O ₂	1.1	+	0.86	+	0.7	+	9.2
Ethylene oxide	C ₂ H ₄ O			13	+	3.5	+	10.57
Ethyl ether	C ₄ H ₁₀ O			1.1	+			9.51
Ethyl 3-ethoxypropionate	C ₇ H ₁₄ O ₃	1.2	+	0.75	+			
Ethyl formate	C ₃ H ₆ O ₂					1.9		10.61
Ethyl hexyl acrylate, 2-	C ₁₁ H ₂₀ O ₂			1.1	+	0.48	+	
Ethylidenenorbornene	C ₉ H ₁₂	0.43	+	0.39	+	0.34	+	≤8.8
Ethyl (S)-(-)-lactate	C ₅ H ₁₀ O ₃	13	+	3.2	+	1.6	+	~10
Ethyl mercaptan	C ₂ H ₆ S	0.60	+	0.56	+			9.29
Ethyl sulfide	C ₄ H ₁₀ S			0.51	+			8.43
Formaldehyde	CH ₂ O	NR	+	NR	+	1.6	+	10.87
Formamide	CH ₃ NO			6.9	+	4		10.16
Formic acid	CH ₂ O ₂	NR	+	NR	+	9	+	11.33
Furfural	C ₅ H ₄ O ₂			0.92	+	0.8	+	9.21
Furfuryl alcohol	C ₅ H ₆ O ₂			0.80	+			<9.5
Gasoline #1	m.w. 72			0.85	+			
Gasoline #2, 92 octane	m.w. 93	1.3	+	1.0	+	0.47	+	
Glutaraldehyde	C ₅ H ₈ O ₂	1.1	+	0.8	+	0.6	+	
Halothane	C ₂ HB _r ClF ₃					0.6		11.0
Heptane, n-	C ₇ H ₁₆	45	+	2.8	+	0.60	+	9.92
Hexamethyldisilazane	C ₆ H ₁₉ NSi ₂			0.24	+	0.19	+	~8.6
Hexane, n-	C ₆ H ₁₄	350	+	4.3	+	0.54	+	10.13
Hexanol, 1-	C ₆ H ₁₄ O	9	+	2.5	+	0.55	+	9.89

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Hexene, 1-	C ₆ H ₁₂			0.8				9.44
Histoclear	m.w. 136	0.5	+	0.4	+	0.3	+	
Hydrazine	H ₄ N ₂	>8	+	3	+	2.1	+	8.1
Hydrogen	H ₂	NR	+	NR	+	NR	+	15.43
Hydrogen cyanide	HCN	NR	+	NR	+	NR	+	13.6
Hydrogen peroxide	H ₂ O ₂	NR	+	NR	+	NR	+	10.54
Hydrogen sulfide	H ₂ S	NR	+	3.3	+	1.5	+	10.5
Iodine	I ₂	0.1	+	0.1	+	0.1	+	9.40
Iodomethane	CH ₃ I	0.21	+	0.22	+	0.26	+	9.54
Isoamyl acetate	C ₇ H ₁₄ O ₂	10.1	+	2.1	+	1.0	+	<10
Isobutane	C ₄ H ₁₀			100	+	1.2	+	10.57
Isobutanol	C ₄ H ₁₀ O	19	+	3.8	+	1.5		10.0
Isobutene	C ₄ H ₈	1.00	+	1.00	+	1.00	+	9.24
Isobutyl acetate	C ₆ H ₁₂ O ₂			2.6				
Isobutyl acrylate	C ₇ H ₁₂ O ₂			1.5	+	0.60	+	
Isoflurane	C ₃ H ₂ ClF ₅ O							~11.7
Isooctane	C ₈ H ₁₈			1.2				9.86
Isopar E Solvent	m.w. 121	1.7	+	0.8	+			
Isopar G Solvent	m.w. 148			0.79	+			
Isopar K Solvent	m.w. 156	0.85	+	0.53	+	0.27	+	
Isopar L Solvent	m.w. 163	0.86	+	0.52	+	0.28	+	
Isopar M Solvent	m.w. 191			0.66	+	0.4	+	
Isopentane	C ₅ H ₁₂			8.2				10.22
Isophorone	C ₉ H ₁₄ O					3		9.07
Isoprene	C ₅ H ₈	0.69	+	0.63	+	0.60	+	8.85

Compound Name	Formula	9.8	C	10.6	C	11.7	C	IP (eV)
Isopropanol	C ₃ H ₈ O	500	+	6.0	+	2.7		10.12
Isopropyl acetate	C ₅ H ₁₀ O ₂			2.6				9.99
Isopropyl ether	C ₆ H ₁₄ O			0.8				9.20
Jet fuel JP-4	m.w. 115			1.0	+	0.42	+	
Jet fuel JP-5	m.w. 167			0.6	+	0.46	+	
Jet fuel JP-8	m.w. 165			0.6	+	0.32	+	
Jet fuel A-1(JP-8)	m.w. 145			0.67				
Jet fuel TS	m.w. 165	0.9	+	0.6	+	0.3	+	
Limonene, D-	C ₁₀ H ₁₆			0.33	+			~8.2
Maleic anhydride	C ₄ H ₂ O ₃							~10.8
Mesitylene	C ₉ H ₁₂	0.36	+	0.35	+	0.32	+	8.41
Methane	CH ₄	NR	+	NR	+	NR	+	12.61
Methanol	CH ₄ O	NR	+	NR	+	2.5	+	10.85
Methoxyethanol, 2-	C ₃ H ₈ O ₂	4.8	+	2.4	+	1.4	+	10.1
Methoxyethoxyethanol, 2-	C ₇ H ₁₆ O ₃	2.3	+	1.2	+	0.9	+	<10
Methyl acetate	C ₃ H ₆ O ₂	NR	+	6.6	+	1.4	+	10.27
Methyl chloride	CH ₃ Cl	NR	+	NR	+	0.74	+	11.22
Methylcyclohexane	C ₇ H ₁₄	1.6	+	0.97	+	0.53	+	9.64
Methylene chloride	CH ₂ Cl ₂	NR	+	NR	+	0.89	+	11.32
Methyl ether	C ₂ H ₆ O	4.8	+	3.1	+	2.5	+	10.0
Methyl ethyl ketone		0.86	+	0.86	+	1.1	+	9.51
Methylhydrazine	C ₂ H ₆ N ₂	1.4	+	1.2	+	1.3	+	7.7
Methyl isobutyl ketone	C ₆ H ₁₂ O	0.9	+	0.8	+	0.6	+	9.30
Methyl isocyanate	C ₂ H ₃ NO	NR	+	4.6	+	1.5		10.67
Methyl isothiocyanate	C ₂ H ₃ NS	0.5	+	0.45	+	0.4	+	9.25

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Methyl mercaptan	CH ₄ S	0.65	+	0.54	+	0.66	+	9.44
Methyl methacrylate	C ₅ H ₈ O ₂	2.7	+	1.5	+	1.2	+	9.7
Methyl nonafluorobutyl ether	C ₅ H ₃ F ₉ O			NR	+	~35	+	
Methyl-1,5-pentanediamine, 2-	C ₆ H ₁₆ N ₂			~0.6	+	coats lamp		<9
Methyl propyl ketone	C ₅ H ₁₂ O			0.93	+	0.79	+	9.38
Methyl-2-pyrrolidinone, N-	C ₅ H ₉ NO	1.0	+	0.8	+	0.9	+	9.17
Methyl salicylate	C ₈ H ₈ O ₃	1.3	+	0.9	+	0.9	+	~9
Methylstyrene, a-	C ₉ H ₁₀			0.5				8.18
Methyl sulfide	C ₂ H ₆ S	0.49	+	0.44	+	0.46	+	8.69
Mineral spirits	m.w. 144			0.71	+	0.39	+	
Mustard gas	C ₄ H ₈ Cl ₂ S			0.6				
Naphthalene	C ₁₀ H ₈	0.45	+	0.42	+	0.40	+	8.13
Nickel carbonyl in CO	C ₄ O ₄ Ni			0.17				<8.8
Nitric oxide	NO	~6		5.2	+	2.8	+	9.26
Nitrobenzene	C ₆ H ₅ NO ₂	2.6	+	1.9	+	1.6	+	9.81
Nitroethane	C ₂ H ₅ NO ₂					3		10.88
Nitrogen dioxide	NO ₂	23	+	16	+	6	+	9.75
Nitrogen tetroxide	N ₂ O ₄							10.8
Nitrogen trifluoride	NF ₃	NR		NR		NR		13.00
Nitromethane	CH ₃ NO ₂					4		11.02
Nitropropane, 2-	C ₃ H ₇ NO ₂					2.6		10.71
Nitrous Oxide	N ₂ O	NR		NR		NR		12.9
Nonane	C ₉ H ₂₀			1.4				9.72
Norpar 12	m.w. 161	3.2	+	1.1	+	0.28	+	
Norpar 13	m.w. 189	2.7	+	1.0	+	0.3	+	

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Octane, n-	C ₈ H ₁₈	13.2	+	1.8	+			9.82
Octene, 1-	C ₈ H ₁₆	0.9	+	0.75	+	0.4	+	9.43
Otto Fuel II				>40		~6		
Pentane	C ₅ H ₁₂	80	+	8.4	+	0.7	+	10.22
Peracetic acid	C ₂ H ₄ O ₃	NR	+	NR	+	2.3	+	
Peracetic/Acetic acid mix	C ₂ H ₄ O ₃			50	+	2.5	+	
Perchloroethene	C ₂ Cl ₄	0.69	+	0.57	+	0.31	+	9.32
PGME	C ₄ H ₁₂ O ₂	2.4	+	1.5	+	1.1	+	
PGMEA	C ₆ H ₁₂ O ₃	1.65	+	1.0	+	0.82	+	
Phenol	C ₆ H ₆ O	1.0	+	1.0	+	0.9	+	8.51
Phosgene	CCl ₂ O	NR	+	NR	+	8.5	+	11.2
Phosgene in Nitrogen	CCl ₂ O	NR	+	NR	+	6.8		11.2
Phosphine	PH ₃	28		3.9	+	1.1	+	9.87
Picoline, 3-	C ₆ H ₇ N			0.9				9.04
Pinene, a-	C ₁₀ H ₁₆			0.31	+	0.47		8.07
Pinene, b-	C ₁₀ H ₁₆	0.38	+	0.37	+	0.37	+	~8
Piperylene, isomer mix	C ₅ H ₈	0.76	+	0.69	+	0.64	+	8.6
Propane	C ₃ H ₈			NR	+	1.8	+	11.0
Propanol, n-	C ₃ H ₈ O			5		1.7		10.22
Propene	C ₃ H ₆	1.5	+	1.4	+	1.6	+	9.73
Propionaldehyde	C ₃ H ₆ O			1.9				9.95
Propylamine, n-	C ₃ H ₉ N	1.1	+	1.1	+	0.9	+	8.78
Propyl acetate, n-	C ₅ H ₁₀ O ₂			3.5				10.04
Propyl mercaptan, 2-	C ₃ H ₈ S	0.64	+	0.66	+			9.15
Propylene carbonate	C ₄ H ₆ O ₃			62	+	1	+	10.52

